

1/12

## SEQUENCE LISTING

&lt;110&gt; University Health Network

Amgen Canada Inc.

Penninger, Josef

Crackower, Michael

&lt;120&gt; Compositions and Methods for Treating Heart Disease

&lt;130&gt; 10723-66

&lt;150&gt; CA 2,400,254

&lt;151&gt; 2002-09-19

&lt;160&gt; 4

&lt;170&gt; PatentIn version 3.1

&lt;210&gt; 1

&lt;211&gt; 3410

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 2

&lt;211&gt; 1102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2

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Arg Lys Cys Lys Ser Pro Glu Thr Ala Leu Leu His Val Ala Gly His 50 55 60		
Gly Asn Val Glu Gln Met Lys Ala Gln Val Trp Leu Arg Ala Leu Glu 65 70 75 80		
Thr Ser Val Ala Ala Asp Phe Tyr His Arg Leu Gly Pro His His Phe 85 90 95		
Leu Leu Leu Tyr Gln Lys Lys Gly Gln Trp Tyr Glu Ile Tyr Asp Lys 100 105 110		
Tyr Gln Val Val Gln Thr Leu Asp Cys Leu Arg Tyr Trp Lys Ala Thr 115 120 125		
His Arg Ser Pro Gly Gln Ile His Leu Val Gln Arg His Pro Pro Ser 130 135 140		
Glu Glu Ser Gln Ala Phe Gln Arg Gln Leu Thr Ala Leu Ile Gly Tyr 145 150 155 160		
Asp Val Thr Asp Val Ser Asn Val His Asp Asp Glu Leu Glu Phe Thr 165 170 175		
Arg Arg Gly Leu Val Thr Pro Arg Met Ala Glu Val Ala Ser Arg Asp 180 185 190		
Pro Lys Leu Tyr Ala Met His Pro Trp Val Thr Ser Lys Pro Leu Pro 195 200 205		
Glu Tyr Leu Trp Lys Lys Ile Ala Asn Asn Cys Ile Phe Ile Val Ile 210 215 220		
His Arg Ser Thr Thr Ser Gln Thr Ile Lys Val Ser Pro Asp Asp Thr 225 230 235 240		
Pro Gly Ala Ile Leu Gln Ser Phe Phe Thr Lys Met Ala Lys Lys Lys 245 250 255		

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Arg Val Cys Gly Arg Asp Glu Tyr Leu Val Gly Glu Thr Pro Ile Lys  
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Asn Phe Gln Trp Val Arg His Cys Leu Lys Asn Gly Glu Glu Ile His  
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Val Val Leu Asp Thr Pro Pro Asp Pro Ala Leu Asp Glu Val Arg Lys  
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Glu Glu Trp Pro Leu Val Asp Asp Cys Thr Gly Val Thr Gly Tyr His  
 325 330 335

Glu Gln Leu Thr Ile His Gly Lys Asp His Glu Ser Val Phe Thr Val  
 340 345 350

Ser Leu Trp Asp Cys Asp Arg Lys Phe Arg Val Lys Ile Arg Gly Ile  
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Asp Ile Pro Val Leu Pro Arg Asn Thr Asp Leu Thr Val Phe Val Glu  
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Ala Asn Ile Gln His Gly Gln Gln Val Leu Cys Gln Arg Arg Thr Ser  
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Pro Lys Pro Phe Thr Glu Glu Val Leu Trp Asn Val Trp Leu Glu Phe  
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Ser Ile Lys Ile Lys Asp Leu Pro Lys Gly Ala Leu Leu Asn Leu Gln  
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Ile Tyr Cys Gly Lys Ala Pro Ala Leu Ser Ser Lys Ala Ser Ala Glu  
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Ser Pro Ser Ser Glu Ser Lys Gly Lys Val Arg Leu Leu Tyr Tyr Val  
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Asn Leu Leu Leu Ile Asp His Arg Phe Leu Leu Arg Arg Gly Glu Tyr  
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Val Leu His Met Trp Gln Ile Ser Gly Lys Gly Glu Asp Gln Gly Ser  
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Leu Pro Lys His Gln Pro Thr Pro Asp Pro Glu Gly Asp Arg Val Arg  
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Ala Glu Met Pro Asn Gln Leu Arg Lys Gln Leu Glu Ala Ile Ile Ala  
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His Phe Arg Tyr Glu Ser Leu Lys His Pro Lys Ala Tyr Pro Lys Leu  
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Arg Ala Ile Ala Val Gln Lys Leu Glu Ser Leu Glu Asp Asp Asp Val  
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Leu His Tyr Leu Leu Gln Leu Val Gln Ala Val Lys Phe Glu Pro Tyr  
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His Asp Ser Ala Leu Ala Arg Phe Leu Leu Lys Arg Gly Leu Arg Asn  
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Lys Arg Ile Gly His Phe Leu Phe Trp Phe Leu Arg Ser Glu Ile Ala  
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Gln Ser Arg His Tyr Gln Gln Arg Phe Ala Val Ile Leu Glu Ala Tyr  
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Leu Arg Gly Cys Gly Thr Ala Met Leu His Asp Phe Thr Gln Gln Val  
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Gln Val Ile Glu Met Leu Gln Lys Val Thr Leu Asp Ile Lys Ser Leu  
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Ser Ala Glu Lys Tyr Asp Val Ser Ser Gln Val Ile Ser Gln Leu Lys  
755 760 765

Gln Lys Leu Glu Asn Leu Gln Asn Ser Gln Leu Pro Glu Ser Phe Arg  
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Val Pro Tyr Asp Pro Gly Leu Lys Ala Gly Ala Leu Ala Ile Glu Lys  
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Cys Lys Val Met Ala Ser Lys Lys Lys Pro Leu Trp Leu Glu Phe Lys  
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Cys Ala Asp Pro Thr Ala Leu Ser Asn Glu Thr Ile Gly Ile Ile Phe  
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Lys His Gly Asp Asp Leu Arg Gln Asp Met Leu Ile Leu Gln Ile Leu  
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Arg Ile Met Glu Ser Ile Trp Glu Thr Glu Ser Leu Asp Leu Cys Leu  
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Leu Pro Tyr Gly Cys Ile Ser Thr Gly Asp Lys Ile Gly Met Ile Glu  
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Ile Val Lys Asp Ala Thr Thr Ile Ala Lys Ile Gln Gln Ser Thr Val  
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Gly Asn Thr Gly Ala Phe Lys Asp Glu Val Leu Asn His Trp Leu Lys  
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Glu Lys Ser Pro Thr Glu Glu Lys Phe Gln Ala Ala Val Glu Arg Phe  
915 920 925

Val Tyr Ser Cys Ala Gly Tyr Cys Val Ala Thr Phe Val Leu Gly Ile  
930 935 940

Gly Asp Arg His Asn Asp Asn Ile Met Ile Thr Glu Thr Gly Asn Leu  
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Phe His Ile Asp Phe Gly His Ile Leu Gly Asn Tyr Lys Ser Phe Leu

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965

970

975

Gly Ile Asn Lys Glu Arg Val Pro Phe Val Leu Thr Pro Asp Phe Leu  
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&lt;210&gt; 3

&lt;211&gt; 3160

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

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&lt;210&gt; 4

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

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20           25           30

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 35 40 45

Asn Ile Asp Asp Val Val Arg Phe Leu Asp Ser Lys His Lys Asn His  
 50 55 60

Tyr Lys Ile Tyr Asn Leu Cys Ala Glu Arg His Tyr Asp Thr Ala Lys  
 65 70 75 80

Phe Asn Cys Arg Val Ala Gln Tyr Pro Phe Glu Asp His Asn Pro Pro  
 85 90 95

Gln Leu Glu Leu Ile Lys Pro Phe Cys Glu Asp Leu Asp Gln Trp Leu  
 100 105 110

Ser Glu Asp Asp Asn His Val Ala Ala Ile His Cys Lys Ala Gly Lys  
 115 120 125

Gly Arg Thr Gly Val Met Ile Cys Ala Tyr Leu Leu His Arg Gly Lys  
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Phe Leu Lys Ala Gln Glu Ala Leu Asp Phe Tyr Gly Glu Val Arg Thr  
 145 150 155 160

Arg Asp Lys Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr  
 165 170 175

Tyr Tyr Ser Tyr Leu Leu Lys Asn His Leu Asp Tyr Arg Pro Val Ala  
 180 185 190

Leu Leu Phe His Lys Met Met Phe Glu Thr Ile Pro Met Phe Ser Gly  
 195 200 205

Gly Thr Cys Asn Pro Gln Phe Val Val Cys Gln Leu Lys Val Lys Ile  
 210 215 220

Tyr Ser Ser Asn Ser Gly Pro Thr Arg Arg Glu Asp Lys Phe Met Tyr  
 225 230 235 240

Phe Glu Phe Pro Gln Pro Leu Pro Val Cys Gly Asp Ile Lys Val Glu  
 245 250 255

Phe Phe His Lys Gln Asn Lys Met Leu Lys Lys Asp Lys Met Phe His  
 260 265 270

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Phe Trp Val Asn Thr Phe Phe Ile Pro Gly Pro Glu Glu Thr Ser Glu  
275 280 285

Lys Val Glu Asn Gly Ser Leu Cys Asp Gln Glu Ile Asp Ser Ile Cys  
290 295 300

Ser Ile Glu Arg Ala Asp Asn Asp Lys Glu Tyr Leu Val Leu Thr Leu  
305 310 315 320

Thr Lys Asn Asp Leu Asp Lys Ala Asn Lys Asp Lys Ala Asn Arg Tyr  
325 330 335

Phe Ser Pro Asn Phe Lys Val Lys Leu Tyr Phe Thr Lys Thr Val Glu  
340 345 350

Glu Pro Ser Asn Pro Glu Ala Ser Ser Ser Thr Ser Val Thr Pro Asp  
355 360 365

Val Ser Asp Asn Glu Pro Asp His Tyr Arg Tyr Ser Asp Thr Thr Asp  
370 375 380

Ser Asp Pro Glu Asn Glu Pro Phe Asp Glu Asp Gln His Thr Gln Ile  
385 390 395 400

Thr Lys Val